AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) ~~Handset~~ A handset for radio communication, the handset comprising:

an antenna; ~~and~~

a ~~ground-plane~~ ground plane associated with the antenna[[,]]~~;~~

the antenna being situated in correspondence with an antenna end of the ground plane ~~ground-plane,~~;

~~characterised in that it further comprises~~ at least one conducting surface situated over a part of the ~~ground-plane~~ ground plane and separated from ~~said~~ the part of the ground plane by a distance of 0.8-20 mm ~~ground-plane,~~;

~~said~~ the at least one conducting surface being arranged so that ~~said~~ the part of the ground plane ~~ground-plane~~ and ~~said~~ the at least one conducting surface, in combination, establish a resonance circuit having a high impedance at an operating frequency of the antenna, towards the antenna end of the ground plane.

2. (CURRENTLY AMENDED) ~~Handset~~ The handset according to claim 1, wherein ~~said~~ the at least one conducting surface is short-circuited to the ground plane ~~ground-plane~~ at a position situated at a distance from an end of the conducting surface facing the antenna end of the ground plane ~~ground-plane~~, ~~said~~ the distance being such that it corresponds to an electric path length of substantially one quarter of the wavelength at the operating frequency, or an odd multiple of a quarter of ~~said~~ the wavelength.

3. (CURRENTLY AMENDED) ~~Handset~~ The handset according to claim 1, wherein ~~said~~ the at least one conducting surface is not short-circuited to the ground plane ~~ground-plane~~, ~~said~~ the at least one conducting surface being arranged such that ~~said~~ the resonance circuit has a first open end facing the antenna end of the ground plane ~~ground-plane~~ and a second open end separated from ~~said~~ the first open end by a distance corresponding to an electrical path length substantially equal to half of the wavelength or a multiple of ~~said~~ the half of the wavelength, at the operating frequency.

4. (CURRENTLY AMENDED) ~~Handset~~ The handset according to claim 1, ~~or 2~~ wherein the ground plane defines an outer perimeter and wherein ~~said~~ the at least one conducting surface is short-circuited to the perimeter of the ground plane or to an inner part of the ground plane.

5. (CURRENTLY AMENDED) ~~Handset~~ The handset according to ~~any of the preceding claims~~ claim 1, ~~wherein it comprises~~ comprising at least one conducting surface over each side of ~~said~~ the ground plane.

6. (CURRENTLY AMENDED) ~~Handset~~ The handset according to ~~any of the preceding claims~~ claim 1, wherein ~~said~~ the at least one conducting surface is defined by a conducting plate or by a layer of conducting material ~~selected from the group~~ comprising at least one of: conducting paint, conducting ink, and [[or]] conducting paste.

7. (CURRENTLY AMENDED) ~~Handset~~ The handset according to ~~any of the preceding claims~~ claim 1, wherein at least one edge of one conducting surface and at least one edge of the ground plane[[,]] are lying on a plane ~~which is~~ substantially perpendicular to the ground plane.

8. (CURRENTLY AMENDED) ~~Handset~~ The handset according to ~~any of the preceding claims~~ claim 1, wherein at least one part of ~~said~~ the at least one conducting surface is substantially parallel to the ground plane.

9. (CURRENTLY AMENDED) ~~Handset~~ The handset according to ~~any of the preceding claims~~ claim 1, wherein the ground plane comprises a first conducting part and a second conducting part, ~~said~~ the first and second conducting parts being electrically connected by at least a conducting strip, ~~said~~ the at least a conducting strip being narrower than the width of any of ~~said~~ the first and second conducting parts.

10. (CURRENTLY AMENDED) ~~Handset~~ The handset according to claim 9, wherein the first and the second part of the ground plane are substantially rectangular.

11. (CURRENTLY AMENDED) ~~Handset~~ The handset according to ~~any of the preceding claims~~ claim 1, wherein ~~said~~ the at least one conducting surface is substantially rectangular.

12. (CURRENTLY AMENDED) ~~Handset~~ The handset according to claim 10, ~~or 11~~ wherein ~~said~~ the at least one conducting surface has the same width as the first or the second part of the ground plane.

13. (CURRENTLY AMENDED) ~~Handset~~ The handset according to claim 10, ~~or 11~~ wherein ~~said~~ the at least one conducting surface is narrower than the ground plane.

14. (CURRENTLY AMENDED) ~~Handset~~ The handset according to ~~any of the claims~~ claim 11, ~~to 13~~ wherein ~~said~~ the at least one conducting surface is aligned with ~~said~~ the conducting strip.

15. (CURRENTLY AMENDED) ~~Handset~~ The handset according to ~~any of the claims~~ claim 9, ~~to 14~~ wherein ~~said~~ the at least one conducting surface comprises a first end short-circuited to the ground plane[[,]] and a second end which is an open circuit and [[it]] is facing ~~said~~ the conducting strip.

16. (CURRENTLY AMENDED) ~~Handset~~ The handset according to ~~any of the preceding claims~~ claim 1, ~~wherein comprises~~ comprising an array of two or more conducting surfaces narrower than the ground plane, ~~said~~ the two or more conducting surfaces arranged parallel or perpendicular with respect to a ground plane longitudinal axis.

17. (CURRENTLY AMENDED) ~~Handset~~ The handset according to claim 16, wherein the conducting surfaces have at least one of a different length ~~and/or~~ and different width.

18. (CURRENTLY AMENDED) ~~Handset~~ The handset according to claim 16, ~~or 17~~ wherein the array of conducting surfaces is a periodic structure.

19. (CURRENTLY AMENDED) ~~Handset~~ The handset according to ~~any of the claims~~ claim 1, ~~2, 4 to 18~~ wherein: ~~said~~
the at least one conducting surface is U-shaped ~~having~~ and has two side arms; ~~wherein~~ each side arm features an electrical length of substantially a quarter wavelength at the operating frequency[[,]]; ~~and wherein said~~
the side arms are short-circuited at their ends to the ground plane, and ~~wherein said~~
the at least one conducting surface comprises an extension ~~which is~~ facing ~~said~~ the conducting strip.

20. (CURRENTLY AMENDED) ~~Handset~~ The handset according to ~~any of the claims~~ claim 1, ~~3, 4 to 18~~ wherein:
~~said~~ the at least one conducting surface comprises two side arms having each arm an end in open circuit;~~, and wherein~~
each ~~arms~~ arm features an electrical length of substantially half of wavelength at the operating frequency[[,]]; and ~~wherein~~
~~said~~ the at least one conducting surface comprises an extension ~~which is~~ facing ~~said~~ the conducting strip.

21. (CURRENTLY AMENDED) ~~Handset~~ The handset according to ~~any of the preceding claims~~ claim 1, wherein:
at least one of the conducting surfaces ~~and/or~~ and the ground plane ~~are~~ is a conducting layer of a multilayer printed circuit board[[,]]; and
~~wherein~~ the ground plane layer is located in between ~~said~~ the conducting surfaces.

22. (CURRENTLY AMENDED) ~~Handset~~ The handset according to claim 21 wherein ~~said~~ the at least one conducting surface is short-circuited to the ground plane ~~by means of~~ via a metallized via hole in the printed circuit board.

23. (CURRENTLY AMENDED) ~~Handset~~ The handset according to ~~any of the claims~~ claim 5, ~~to 22~~ wherein at least one conducting surface over one side of the ground plane[[,]] is a mirror image of another conducting surface placed over the other side of the ground plane.

24. (CURRENTLY AMENDED) ~~Handset~~ The handset according to ~~any of the claims~~ claim 6, ~~to 23~~ wherein the handset comprises a cover made of non-conducting material and ~~wherein said~~ the conducting paint, paste or ink is coated on a face of ~~said~~ the cover.

25. (CURRENTLY AMENDED) ~~Handset~~ The handset according to ~~any of the claims~~ claim 2, ~~4 to 20, 21 to 24~~ wherein ~~said~~ the at least one conducting surface is short-circuited to the ground plane via at least one of ~~by means of shorting means selected from the group comprising~~:
a metallic connection[[,]];
a capacitive component having low impedance at RF frequencies[[,]];

conductive paint[[,]];
conductive paste; and [[or]]
conductive ink.

26. (CURRENTLY AMENDED) ~~Handset~~ The handset according to ~~any of the preceding claims~~ claim 1, wherein ~~it~~ the handset is a clamshell or flip-phone handset.

27. (CURRENTLY AMENDED) ~~Handset~~ The handset according to ~~any of the preceding claims~~ claim 1, wherein a part of at least one of at least one conducting surface ~~and/or~~ and a part of the ground plane is a multilevel structure or a space-filling curve.

28. (CURRENTLY AMENDED) A clamshell handset ~~including~~ comprising:
an electromagnetic bra structure at least at one half of the handset phone[[,]]
wherein the ~~such an~~ electromagnetic bra structure ~~comprising~~ comprises two conducting plates[[,]]; ~~said~~
the plates being placed at both sides of a ground plane of ~~such a~~ the clamshell handset[[,]];
both of ~~said~~ the plates being connected at least at one point of the handset[[,]]; ~~said~~
the plates being a quarter ~~wave~~ wavelength in length or an odd multiple of a quarter wavelength[[,]];
wherein ~~with~~ the clamshell handset has formed therein an opening nearby ~~the~~ a hinge of ~~said~~ the clamshell phone.

29. (CURRENTLY AMENDED) ~~Method~~ A method of producing a handset ~~according to any of the preceding claims characterised in that it comprises~~ comprising:
arranging at least one conducting surface over a part of ~~the~~ a ground plane ~~ground-plane~~ and separated from ~~said~~ the part of the ground plane by 0.8-20 mm ~~ground-plane,~~; and
wherein ~~so that said~~ the part of the ground plane ~~ground-plane~~ and ~~said~~ the at least one conducting surface, in combination, establish a resonance circuit having a high impedance at an operating frequency of the antenna, towards ~~the~~ an antenna end of the ground plane.